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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,122	03/19/2004	Akihiko Kanouda	520.43574X00	7736
20457 7590 03/02/2007 ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873			EXAMINER FANTU, YALKEW	
			ART UNIT 2838	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS		MAIL DATE 03/02/2007	DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/804,122	KANOUDA ET AL.	
	Examiner	Art Unit	
	Yalkew Fantu	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 3-7, 9-11 and 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 8 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's election with traverse of embodiment 1 with claims 1, 2, 8 and 12 in the reply filed on 06-08-2006 is acknowledged. The traversal is on the ground(s) that there is not as serious burden on the examiner. This is not found persuasive because contrary to applicants' remarks, a search for and application of prior art to the various species is in fact a burden on the office.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corless et al (US 6,559,621) in view of Kim et al (US 2003/0122523).

With respect to claim 1, Corless et al (hereinafter, Corless) discloses a mobile type power supply (fig. 9), comprising a battery pack containing a battery (fig. 9, 14 and 16) and an output voltage conversion means (fig. 9, 22) that converts the output voltage of the battery according to an output voltage reference value (dc-dc converter converts based on the reference voltage value); and a connection means (the bus between converter and load in fig. 9) that is connected to both battery pack (battery 14 and 16) a load (fig. 9, 18) and supplies DC power, outputted by the output voltage conversion

means 22, to the load 18; but does not expressly disclose that fig. 9, 10 is a battery pack.

Kim et al (hereinafter, Kim), however, discloses a battery pack (fig.4, 20) containing a battery 23 and an output conversion means 21, which includes a dc-dc converter.

Corless and Kim are analogous arts because they are from the same field of endeavor namely Battery powered printing apparatus.

At the time of the invention it would have been obvious to a person having ordinary skill in the art to provide a battery pack containing a rechargeable battery and voltage conversion means as taught by Kim to the hybrid energy storage device of Corless to ensure the corresponding power supply voltage of the load.

The motivation would have been that the use of battery package containing battery and output voltage conversion means is to have the required voltage output means within the battery pack before output to the load. This helps get a simplified connector for adapting an output power to a portable appliance or load (page 1, par. 9).

Therefore it would have been obvious to combine Corless with Kim for the benefit of hybrid energy storage with a battery pack containing rechargeable battery and a voltage output conversion means to obtain the invention as specified in claim 1.

With respect to claim 2, combined references of Corless and Kim disclose a mobile type power supply (fig. 9), comprising a battery pack containing a battery (fig. 9, 14 and 16) and an output voltage conversion means (fig. 9, 22). Besides, (Corless discloses wherein the output voltage reference value output means outputs an output

voltage reference value (fig. 9, 22), which, among multiple output voltage reference values (it is implicit for dc-dc converter to convert and output multiple output voltages), corresponds to the power supply voltage of the load (fig. 9, 18), to the output voltage conversion means 22.

Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corless et al (US 6,559,621) in view of Kim et al (US 2003/0122523) further in view of Popescu-Stanesti (US 6326771).

Regarding claim 8, the combined references of Corless and Kim disclose that the combined references of Corless and Kim disclose a mobile type power supply (fig. 9), but do not expressly disclose that load side of the connection means is comprised of a rechargeable battery compatible plug that is exchangeable with a rechargeable battery pack to be attached and detached freely to and from the load. On the other hand, Popescu-Stanesti discloses the a load (mobile phone fig. 10, 24) comprised of a rechargeable battery (fig. 10, 18; a rechargeable battery within the mobile phone) compatible plug that is exchangeable with a rechargeable battery pack to be attached and detached freely to and from the load (a mobile phone implicitly has a battery that can be attachable or detachable). The reason is that once the battery completely depletes, it can be replaced with minimum cost. It also includes a switching mechanism that selectively decouples the battery from the load (col. 2, lines 46-47)

With respect to claim 12, the combined references of Corless and Kim disclose that the combined references of Corless and Kim disclose a mobile type power supply

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(fig. 9). In addition to that, Corless discloses wherein the output voltage conversion means is a DC-to-DC boost converter (fig. 4, 25; col. 7, line 32).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yalkew Fantu whose telephone number is 571-272-8928. The examiner can normally be reached on M - F: 7- 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



KARL EASTHOM
SUPERVISORY PATENT EXAMINER